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PATENT APPLICATION

GENERATING MULTIPLE RANDOM PICKS FROM A GAMING SLIP

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BACKGROUND

Technical Field

[0001] Embodiments of the present invention generally relate to gaming systems. More particularly, embodiments relate to the generation of random picks in future draw games.

Discussion

[0002] Games of chance such as instant "scratch-off" games and future draw games have become an integral part or modern day society, and continue to grow in popularity. Indeed, many jurisdictions have come to rely on various games as a major source of revenue. Future draw games, such as state-sponsored lotteries and other promotional games typically involve the printing and distribution of gaming slips, which enable consumers to request "picks", and the processing of gaming slips at point of sale terminals to determine the requested picks. As each gaming slip is processed, the picks are stored to a data center associated with the drawing and the consumer is provided with a ticket indicating which picks are being played. When the drawing is held, the picks are compared to the drawing results in order to identify the winning picks. While conventional approaches to implementing future draw games have been suitable under certain circumstances, there remains considerable room for improvement. A particular area of concern relates to gaming slips.

[0003] A conventional gaming slip might include a substrate such as paper or cardboard with gaming information printed on the substrate, where the gaming information has one or more game panels for the selection and/or identification of picks. In one approach, each game panel includes a manual selection region that enables a manual pick to be identified and a random request region that enables a computer-generated pick to be requested. A manual pick is typically one or more manually-selected numbers where a computer-generated pick is typically one or more randomly-selected numbers. One particular concern associated with such an approach is that it has been determined that a substantial number of gaming slips are submitted with only one of the game panel manual selection regions completed. Thus, the typical gaming

slip has a considerable number of unused manual selection regions, which effectively results in waste and added costs for the overall system. On the other hand, it has been determined that many gaming slips are submitted with multiple game panel random request regions filled out to request computer-generated picks. Merely eliminating game panels to reduce the waste associated with unused manual selection regions would therefore result in lost revenue under conventional approaches because the random request regions would also be eliminated. There is therefore a need for an approach that increases the ratio of random to manual play opportunities.

[0004] Another concern associated with conventional gaming slips relates to the ability to play multiple types of games. In this regard, it is common for each gaming slip to be dedicated to a particular type of game such that all of the game panels on the gaming slip correspond to the type of game in question. As a result, gaming consumers must use multiple gaming slips in order to play more than one game. The added costs associated with the additional gaming slips can negatively affect profits and transaction speeds. Furthermore, the ability to cross-market games in order to expose gaming consumers to more than one game is limited under such an approach. It should also be noted that the ability to develop a better understanding of the sales relationships between game types is relatively difficult under the one game per gaming slip approach. There is therefore a need for an approach that reduces the costs associated with gaming slips, improves cross-marketing opportunities and enhances the ability to assess the play behavior of gaming consumers.

BRIEF DESCRIPTION OF THE DRAWINGS

[0005] The various advantages of the embodiments of the present invention will become apparent to one skilled in the art by reading the following specification and appended claims, and by referencing the following drawings, in which:

[0006] FIG. 1 is a diagram of an example of a gaming slip, according to one example embodiment of the invention;

[0010] FIG. 2A is a diagram of an example of a lottery play slip, according to one example embodiment of the invention;

[0011] FIG. 2B is a diagram of an example of a completed lottery play slip, according to one example embodiment of the invention; and

[0012] FIG. 3 is a flowchart of an example of a method of processing a gaming slip, according to one example embodiment of the invention.

DETAILED DESCRIPTION

[0013] Systems and methods of processing gaming slips enable a plurality of computer-generated picks to be requested from a single random request region of the slip. In addition, each gaming slip may include a plurality of random request regions, where each random request region corresponds to a different type of game. As a result, a number of advantages may be achieved such as greater sales per slip, faster transaction speeds, increased cross-marketing opportunities and improved game type tracking.

[0014] FIG. 1 shows a gaming slip 10 having a substrate 12 and gaming information 14 coupled to the substrate 12. Gaming slips such as the gaming slip 10 may be printed and distributed to various retail sites, where consumers can visit the retail sites and use the gaming slips to play games of chance such as lotteries and other promotional games. For example, a consumer might fill in the various regions of the gaming slip 10 in order to make picks in a state-sponsored future draw lottery. After the gaming slip 10 is filled in, the gaming slip may be scanned by a gaming terminal such as the Altura® terminal available from GTech Corporation, Rhode Island, where the gaming terminal identifies the requested picks. A receipt or game ticket may be generated and provided to the consumer, where the game ticket identifies the requested picks. The requested picks may also be stored to a data center along with the picks made by all other consumers for the drawing in question. When the drawing is held, the stored picks may be compared to the drawing results stored picks in order to determine the winning picks.

[0015] It should be noted that although some of the examples described herein make reference to lottery implementations, the embodiments of the invention are not so limited. Indeed, the principles described herein may be useful in any gaming environment in which the issues of cost, transaction speed or cross-marketing are of concern. Notwithstanding, there are a number of aspects of future draw lotteries for which the embodiments are well suited.

[0016] The gaming information 14 of gaming slip 10 includes a plurality of random request regions 16 (16a-16c), where each random request region 16 enables a plurality of computer-generated picks 18 (18a-18c) to be requested. In the illustrated example, random

request region 16a may enable computer-generated picks 18a to be requested, random request region 16b may enable computer-generated picks 18b to be requested, random request region 16c may enable computer-generated picks 18c to be requested, and so on. By enabling each random request region 16 to result in multiple computer-generated picks, game ticket 10 may more closely reflects the purchasing patterns of the typical gaming consumer.

[0017] It should also be noted that each random request region 16 may correspond to a different type of game. For example, the illustrated gaming information 14 includes a plurality of game panels 20 (20a-20c), where each game panel 20 has a random request region 16 and a manual selection region 22 (22a-22b), and each game panel 20 corresponds to a different type of game. Each manual selection region 22 may enable manual pick to be identified. Each game panel 20 may also include a draw request region 24 (24a-24b), where each draw request region 24 enables the manual pick to be played for a plurality of drawings. Each game panel 20 may also include a random notification box 26 (26a-26c), which may enable the use of the corresponding random request region 16 to be identified. Thus, selection of each random notification box 26 may instruct the gaming terminal to process the information in the corresponding random request region 16.

[0018] Turning now to FIG. 2A, one approach to a gaming slip is shown in greater detail, where the gaming slip is a lottery play slip 10'. In the illustrated example, play slip 10' may have a substrate 12' and gaming information 14' printed on the substrate 12'. The gaming information 14' includes a plurality of game panels 20' (20a'-20c'), where each game panel 20' corresponds to a different type of game. In the illustrated example, game panel 20a' corresponds to a "Dream 5" game, game panel 20b' corresponds to a "Lotto East" game, and game panel 20c' corresponds to a "Giga Millions" game. Each game panel 20' also may have a random request region 16' (16a'-16c') and a manual selection region 22' (22a'-22c'). Each game panel 20' also may have a draw request region 24' (24a'-24c') and a random notification box 26' (26a'-26c').

[0019] FIG. 2B illustrates an example in which play slip 10' has been completed by a gaming consumer. The particular numbers and type of games played is shown to facilitate discussion only. Thus, other picks and games may be played without parting from the spirit and scope of the embodiments described. Each random request region 16' may enable a plurality of computer-generated picks 18' (18a'-18c') to be requested. A wide variety of approaches can be used to generate the random numbers. For example, most gaming terminals use a formula to

generate pseudo-random numbers, where the formula is highly guarded. The term "random" is used herein to include both pseudo-random and purely random techniques. The generation of random and pseudo-random numbers is well understood and outside the scope of this discussion, but the characteristics of a desirable formula are minimal repetition, good numeric distribution and lack of predictability. One example of a random-number formula is given by,

```
Int rand ()
{
 random_seed = random_seed * 1103515245 +12345,
 return (unsigned int) (random_seed / 65536) % 32768;
}
```

[0020] In the illustrated example, the random request region 16a' has been filled out to request three computer-generated picks 18a', where each computer-generated pick includes a plurality of randomly-selected numbers. In the "Dream 5" game, each computer-generated pick 18a' includes five randomly-selected numbers. Similarly, random request region 16b' has been filled out to request two computer-generated picks 18b', where each of the computer-generated picks 18b' includes six randomly-selected numbers. Random request region 16c' results in the generation of six computer-generated picks 18c', where each of the computer-generated picks 18c' includes a single randomly-selected number. Random notification boxes 26' have been filled in to notify the point-of-sale terminal that the respective random request regions 16' should be scanned. It should be noted that the computer-generated picks 18' are for a single drawing. As a result, the revenue generated by the play slip 10' can be substantially greater than a conventional play slip.

[0021] It can also be seen that each manual selection region 22' may enable a manual pick to be identified. In the illustrated example, the manual selection region 22a' has been filled out to identify the numbers "2-19-20-28-36". In addition, the draw request region 24a' has been filled out to request that this manual pick be played for 12 drawings. Similarly, manual selection region 22b' has been filled out to identify the numbers "2-19-20-28-36-49", where draw request region 24b' requests that this pick be played for 8 drawings. Manual selection region 22c' has been filled out to identify the numbers "2-19-20-28-36" in the "Pick 5" portion of the "Giga Millions" game type and the number "49" in the "Pick 1" portion of the "Giga Millions" game type, where the identified numbers will be played for a single drawing.

[0022] Turning now to FIG. 3, a method 30 of processing a gaming slip is shown. Method 30 can be implemented in a gaming terminal using a wide variety of commercially available hardware and/or software programming techniques. For example, method 30 can be implemented as a set of instructions to be stored in a machine-readable medium such as random access memory (RAM), read only memory (ROM), flash memory, etc., where the instructions are capable of being executed by a processor. Processing block 32 provides for reading a random request region of a gaming slip. A plurality of picks are generated at block 34 based on the random request region, where each pick includes one or more randomly-generated numbers. It should be noted that the gaming slip may include a plurality of random request regions, where block 32 provides for reading each of the random request regions and each random request region may correspond to a different type of game. In such a case, block 34 provides for generating a plurality of picks for each random request region. Processing block 36 provides for tracking game data for the gaming slip based on each type of game played on the gaming slip. Thus, valuable information may be accumulated regarding the sales relationships between game types. For example, in the play slip 10' (FIGS. 2A and 2B) described above, it may be determined that a gaming consumer who plays the "Dream 5" game type is also likely to play the "Lotto East" game type and the "Giga Millions" game type. The tracked game data may be used to select the types of games to be included on future tickets as well as the number off computer-generated picks to be made available to consumers. Simply put, tracking game data in this manner enables more effective cross-marketing and a substantial increase in revenue per play slip. It should also be noted that by enabling each random request region to result in a plurality of computer-generated picks, revenue can be increased further. Providing multiple game types per gaming slip also increases transaction speeds because there are fewer slips for the retailer to handle.

[0023] Those skilled in the art can appreciate from the foregoing description that the broad techniques of the embodiments of the present invention can be implemented in a variety of forms. Therefore, while the embodiments of this invention have been described in connection with particular examples thereof, the true scope of the embodiments of the invention should not be so limited since other modifications will become apparent to the skilled practitioner upon a study of the drawings, specification, and following claims.